

A Continuous-Time Multi-Gigahertz Filter using Transmission Line Delay Elements

Abstract

An analog equalization filter is disclosed which permits higher speed and linearity than existing designs, allowing for filtering operation to the hundreds of gigahertz range. Possible applications include fixed and adaptive equalization filtering and radio frequency filtering. The filter can be entirely implemented on an integrated circuit chip. The filter is based on transmission line based delay elements and transconductance amplifiers.